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Attached are copies of Annexes 1 through 3 to Government Order B 2/4064. They contain specifications for the construction of Kuestenschutzboote (coast protection boats) (KS) to be built by the Yachtwerft (Yacht building yard) VEB in Berlin-Koepenick.

Comment. Government Order B 2/4064 is Principal Order No 568 for the construction of 10 batch-III boats which was placed with the Yachtwerft VEB in Berlin by the former Bureau fuer Wirtschaftsfragen (Office for Economic Problems).

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ANNEX I

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~~Strictly Confidential~~

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Annex I -

August 1952

To Government

B 2/40 G

B 2/40 G

10 scoping cutters

SpecificationsPrincipal Characteristics:

Length over deck	27.80 meters
Length on the designed waterline	26.82 "
Beam over rubbing strakes	4.80 "
Molded beam	4.58 "
Beam on the waterline	4.30 "
Trackboard forward	2.15 "
Trackboard at frame 31	1.46 "
Trackboard aft	1.42 "
Molded depth at frame 31	2.80 "
Frame spacing	0.40 "
Designed displacement	78.00 cubic meters

Three "Juno 205 C"-type Junkers aircraft Diesel engines with reserve gear.

Speed demanded about 24 knots with riveted hull, weighing 72 tons.

The documents required for the design of the vessel are in your hands. The vessel is to be built in the same style as the previous vessels delivered by your firm.

The quality of the building materials must comply with the annexed delivery conditions and terms of payment, see Article 4, sections 1 and 2.

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ANNEX 2

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Annex 2

to Government Order

No B 2/4064

Workmanship and Quality Specifications1. Workmanship

The shipyard undertakes to deliver the vessels perfect in quality and workmanship.

Each piece of material to be used must bear the acceptance stamp of the DSRK. The certificates of quality of the material tested must be collected and be submitted to the BfW. Should no test certificate be available, tests must be made later at the shipyard. The completeness of the test certificates is to be checked by the BfW. Only 42.11-type steel is to be used as material. Plates showing rolling defects must be refused, and the same applies to material showing any cracks after the edge bending or bending process. Any change in the material used must be approved by the BfW.

a. Workmanship:

Wherever possible, all oil-tight parts must be sealed without using luting agents. Only wire gauze or thin layers of brown paper or tar paper may be used as sealing material with the approval of the responsible supervisory board; the use of rags soaked in paint is strictly forbidden.

The edges of oiltight pieces must be sealed by welded knees. Only welders who passed their welder's examination according to the rules of the DSRK may be employed in the welding operations.

b. Weight-reducing holes:

Weight-reducing holes, in particular the apertures in the longitudinal frames, the longitudinal beams and horizontal bulkhead strips in the floor plates, the web frames, the cross beams and frame strips must have smooth edges.

Any burrs must be carefully removed and no cracks in the edges are admissible.

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c. Tanks:

Peak Tanks, freshwater tanks, feed water tanks and oil tanks more than 4 meters in breadth must be fitted with a wash plate in conformity with the general rules.
Each tank must be fitted with air pipes and overflow pipes. Drinking water tanks must be carefully cleaned and be given a triple coat of whitewash.

d. Cementing:

Inside the bilges, the bottom must be lined with cement or asphalt or any other proven mass to such a level that the water can freely flow to the limbers.
Utmost care also must be taken that the narrow spaces in the fore peak and the after peak between the plates and angles are entirely lined with cement or another mass.

e. Tightness tests:

All watertight items, such as the skin plating, the decks, the bulkheads outside plates of the superstructure, and the collision bulkheads, the companion ways and skylights must be tested for water tightness by powerful water jets. Exceptions are only those items, which are required to be subjected to hydraulic tests in conformity with the rules given below.
The collision bulkhead must undergo a hydraulic test for a water column as high as the height of the freeboard deck. Each compartment must be subjected to a hydraulic test corresponding to the maximum pressure which might occur in operating conditions.
All feed water tanks and fresh water tanks as well as the oil tanks must undergo a hydraulic test corresponding to a water column of 2.5 meters over the tank cover. If the load line is higher than 2.5 meters above the tank cover, the hydraulic test must be made up to the level of the load mark.
These tests must be effected while the vessel is still on the stocks and before the cementing and the first coat of paint are applied. Should it prove necessary to perforate the oil tank bulkheads, for fitting lead-throughs or other reasons, another test must be made at the request of the supervisory board. This second test may be effected afloat.
Bulkheads and decks must be carefully inspected before these tests are carried out.
Hold tanks must be subjected to a hydraulic test for a water pressure of 2.5 meters above the covering deck.
Leaking welded spots must be marked as such and be rewelded.
The shipyard undertakes to make an official report on each hydraulic test. These reports must be collected and attached to the delivery documents.

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f. Scuppers:

A sufficient number of scuppers of adequate size must be fitted on deck. If a deckstringer angle is perforated by a scupper, a counter angle must be fitted to avoid any weakening at such spots.

g. Anchors, chain cables, bitts and hawse pipes:

Each ship must be equipped with a windlass of adequate size and strength.

The chain sprockets, chain pipes and hawsers must have dimensions which make possible the smooth running of the chains at the windlass. The dimensions of the sprockets, the chain pipes and the hawses will be checked by the supervisory board of the BFW. A sufficient number of bow hawsers, side hawsers, bitts, and cleats of adequate size must be fitted.

h. Special equipment:

Radio, sound signaling devices, nautical and similar equipments must previously be tested by the contractors.

i. Pipe systems of the main and auxiliary machinery:

The main and auxiliary machinery will be accepted in conformity with the pertinent specifications (see acceptance conditions for Diesel engines).

1. The supervisory board ^{will} check the dimensions and workmanship of the machinery on the basis of the approved drawings. The quality inspectors of the shipyard also will carefully check the dimensions and workmanship of the various items and inform the supervisory board in the event of any deviation from specifications. The chief quality inspector will be responsible for the procurement of test pieces and the correct execution of all tests.

2. Acceptance rules.

Three acceptances will be made:

- a. acceptance of the material
- b. intermediate acceptance
- c. acceptance on completion of items (functioning test).

These acceptances are defined as follows:

a. Acceptance of material:

The acceptance inspection of the material includes only the testing of the material to be used in the item. Should no quality inspector be available in one or the other supplying firm, the BFW must be informed and the test must be carried out later.

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b. Intermediate acceptance:

On completion of the various building stages, an intermediate acceptance must be made by the local supervisory board or, on special orders, by the quality inspector. A detailed report on each section of the item accepted, indicating all defects and deficiencies, must be prepared.

c. Acceptance on completion of the item (performance test).

The final acceptance, to be effected by BfW, include a functioning test of all parts of the item.

When applying for the acceptance 14 days earlier, the shipyard submits to the BfW all tests and drawings and a list of the shipyard employees attending the acceptance.

The shipyard is responsible for the handling of the ship which may hoist the flag of the German Democratic Republic (DDR) during the trial run. Should, for some reason, the shakedown run be broken off or postponed, the shipyard must inform the BfW by letter fixing the new date for trial.

On acceptance, the acceptance report will be drafted and the handing-over certificate (on the putting into service) will be issued by the BfW.

The acceptance consists of

1. the dock trials
2. the shake-down trials of the ship under way

1. Trials aboard ship in port.

The trials while in port consist of testing all items not connected with the acceptance trials to be carried out at sea and include

- a. Water jet tests of watertight above-water connections,
- b. Rudder stop tests,
- c. Checking the electrical plant,
- d. Checking the emergency lighting plant,
- e. Checking the engine room telegraphs including the order-transmission devices,
- f. Checking the nautical equipment and deck gear (as per inventory list)
- g. Checking the life-saving equipment (lifebelts, lifebuoys, provisions, etc.)

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- h. Testing the Ps (sic) and ventilation of engine rooms and living quarters,
- j. Stability test,
- k. Quality inspection of items on deck and below.

2. Trial run.

The actual acceptance run includes all tests bearing directly on the ship's future voyages, her maneuvers and her consumption trials, including

- a. Mooring maneuvers,
- b. Rescue maneuvers consisting in getting out all life-saving appliances,
- c. Functioning tests of the emergency generators in case of cut-out of the electric plant,
- d. Steering maneuvers, including the functioning test of the emergency rudder in case of the failure of the steering mechanism,
- e. Testing of special gears, such as the radio and the measure instruments,
- f. Turning-circle test,
- g. Speed trials over the measured mile,
- h. Functioning test of the main propelling and the auxiliary machinery (see acceptance conditions for main engines and auxiliary machinery).

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to Government Order

No B 2/4064

ANNEX 3Acceptance conditions for the engine plant.

The three JUMO 205 C-type Junkers aircraft Diesel engines, which are to be installed and serve as main propelling engines will be supplied to you by the Diesel Engine Plant in Rostock. A test stand and acceptance certificate, to be issued by the DMR in triplicate be asked for. This certificate must indicate the factory number of the engine and all technical data needed, such as output achieved, number of revolutions (rpm), temperatures, duration of test, etc. stated on acceptance. One copy of the certificate must be submitted to the BfW. Each engine must be fitted with a centrifugal regulator to prevent the engine from racing. A record, indicating the duration of the test and all particular occurrences during the runs, shall be kept on every engine test made on shipboard. The engine must be operated by expert personnel only. The Coswig-Dresden ABUS-type marine reserve gear, which is to be installed, must be in accord with the acceptance and certificate rules applicable to the engines. The number of operating tests during the trial run also be recorded. The gear must permit executing four movements ahead and four astern per minute. The same conditions apply to the two HK 65 type-2 Junkers Diesel engines.

Pumping arrangements.

The supplying firm undertakes to subject the pumps to a functioning test at their plant in conformity with the specifications. The test stand certificate must contain the exact data on the measured capacity output in square meters per hour and the pressure ratio. The test stand certificate, which shall be attached in triplicate to the delivery papers, must indicate the name of the manufacturing firm, the factory number of the item and the year of construction, and must be signed and dated by the tester.

Pipe system.

The pipes must be installed in accord with pertinent drawings and specifications. In order to avoid any vibrations, the pipes must be well suspended and the exhaust pipes must be fitted with expansion knees where needed. The trial test of the pipe system will take place on shipboard and meet the requirements prescribed. Any alterations which, for technical reasons, might prove necessary during installation, must be approved by the orderer.

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Containers and tanks.

All containers and tanks must be manufactured and be installed in accord with the drawings and specifications.
The installation of the other mechanical equipment must comply with the specifications.

Heating plant.

The heating plant will be built and installed in conformity with the work drawings and the specifications (V2a-type).
The orderer reserves to himself the right of alterations due to technical reasons. Any alterations on the part of the shipyard must be approved by the orderer.

Electrical installations.

All machinery, electric motors, apparatus and fittings to be installed must be made of standard pieces meeting the requirements of accepted specifications and all parts must have been tested by the DSRK.

Operating Voltage.

The ship mains voltage is 24 volts.
Careful wiring is a special point and only firms guaranteeing first-class manufacture and wiring will execute this work.

Generators and Motors.

Regulations concerning the kind of operation, increase in temperature, overload and commutation must be complied with.
The two FIMAG generators, each of 7 kW at 1,200 rpm and 232 A, with voltage of 30 volts as well as all electric motors must bear the firm plate of the manufacturer indicating normal output, terminal voltage, rpm and the year of construction and must be accepted by the DSRK.

Lighting.

The lighting set in all rooms must be accident-proof.

Date targets.

Target dates for the electrical plant and its accessories must be set to assure delivery to the shipyard in time and to avoid delay.

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Test certificates.

On receipt of the individual parts, the shipyard undertakes to dispatch a special messenger to the orderer with a single copy of the test certificates the individual supply firms have asked for. In case of divergence between acceptance specifications and drawings, the drawings are binding.

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